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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,565	12/18/2001	Alan D. Cetel	EH-10559	2683

7590

05/22/2003

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EXAMINER

SHEEHAN, JOHN P

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

45

Office Action Summary	Application No. 10/023,565	Applicant(s) CETEL, ALAN D.	
	Examiner John P. Sheehan	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on March 11, 2002. The Examiner has accepted these drawings.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - I. In claim 12, line 4, it is not clear what the meaning is in the context of the claim of the phrase, "and in any event less than about 0.02". First, is 0.02 a weight percent? Further, does this phrase mean that zirconium can be added but not more than 0.02?
 - II. In claim 12, line 6, it is not clear how the sum of aluminum and titanium can be defined in terms of a range, 6.5-8%, when each of aluminum and titanium are defined as 3.6% and 4.1% respectively for a total of 7.7%.
 - III. In claim 11, line 2 and claim 12, line 8, it not clear what the meaning is of the terms "2.5X" and "2.4X".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 to 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duhl et al. (Duhl, US Patent No. 4,597,809) taken in view of Bieber et al. (Bieber, US Patent No. 3,619,182).

Duhl teaches a specific example of a single crystal Ni based superalloy (Abstract), containing Cr, Co, Mo, W, Ta, Al, Ti and the sum of Al+Ti encompassed by the alloy recited in the instant claims (column 3, lines 35 to 40) and containing tantalum carbide (column 3, lines 8 and 9). Duhl teaches that this alloy is based on alloy IN 792 (column 3, line 32) and that alloy IN 792 is described in US Patent No. 3,619,182 (Bieber et al.) (column 1, lines 28 to 35).

Bieber, referred to in Duhl as teaching the IN 792 alloy (Duhl, column 1, lines 28 to 35) teaches that the IN 792 alloy contains 0.005 to 0.05% B and 0.01 to 0.25% Zr (Bieber, column 1, lines 35 to 42).

The claims and Duhl differ in that Duhl; (1) does not teach the B and Zr content recited in the instant claims (2) is silent with respect to directional solidification recited in applicants' claims 1 to 11, 13 and 14 and (3) is silent with respect to the properties recited in the last three lines of applicants' claim 1.

However one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because Duhl's alloy as disclosed by Duhl is the IN 792 alloy and therefore would be expected to contain the B and Zr proportions of the IN 792 alloy which as disclosed by Bieber overlap the B and Zr proportions recited in the instant claims. With respect to the directional solidified limitation recited in applicants' claims 1 to 11, 13 and 14, it is the Examiner's position that in view of the fact that applicants' dependent claim 4 (dependent from applicants' independent claim 1) recites a "single crystal article" it would appear that applicants' claim 1 encompasses "single crystal" alloy structures and thus would encompass Duhl's "single crystal" alloy. Regarding the properties recited in the last three lines of applicants' claim 1, it is the Examiner position that in view of the fact that the alloy taught by Duhl has a composition that is encompassed by the instant claims Duhl's alloy would be expected to possess all the same properties as recited in the instant claims, *In re Best*, 195 USPQ, 430 and MPEP 2112.01.

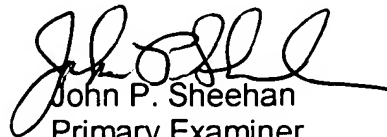
"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, *In re Best*, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' *In re Spada*, 15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (703) 308-3861. The examiner can normally be reached on T-F (6:30-5:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703) 308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.


John P. Sheehan
Primary Examiner
Art Unit 1742

jps
May 20, 2003